

REVISED SURREBUTTAL TESTIMONY AND EXHIBITS OF
O'NEIL O. MORGAN
ON BEHALF OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
DOCKET NOS. 2021-143-E and 2021-144-E

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.**

2 A. My name is O'Neil O. Morgan. My business address is 1401 Main Street, Suite
3 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as a
4 Senior Engineer in the Utility Rates and Services Division of the Office of Regulatory Staff
5 ("ORS").

6 **Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

7 A. Yes. I previously provided direct testimony and four (4) exhibits on September 21,
8 2021, related to Duke Energy Carolinas, LLC's ("DEC") and Duke Energy Progress,
9 LLC's ("DEP" and together with DEC, "Duke" or the "Companies") Applications for
10 approval of Smart Saver Solar as Energy Efficiency ("EE") Programs ("Programs").

11 **Q. WHAT IS THE PURPOSE OF YOUR REVISED SURREBUTTAL TESTIMONY?**

12 A. The purpose of my revised surrebuttal testimony is to address the rebuttal
13 testimonies filed by Company Witnesses Leigh Ford and Timothy J. Duff.

14 **Q. DO YOU HAVE ANY EXHIBITS TO YOUR REVISED SURREBUTTAL**
15 **TESTIMONY?**

16 A. Yes. I have two (2) exhibits to my Revised Surrebuttal Testimony. They include
17 my full curricula vitae labeled Revised Surrebuttal Exhibit OOM-1 and Duke's description

of the EE/DSM Nonresidential Smart Saver-Energy Efficient Products and Assessment Program as set forth in the associated tariffs and labeled as Revised Surrebuttal Exhibit OOM-2, which support my Revised Surrebuttal Testimony.

Q. DO YOU AGREE WITH COMPANY WITNESS FORD'S ASSERTION THAT YOU DO NOT RECOGNIZE THE DIFFERENCE BETWEEN NET ENERGY METERING ("NEM") LOST REVENUE AND EE NET LOST REVENUE (FORD REBUTTAL, PP. 6-7)?

A. No. Contrary to Witness Ford's statements, I am familiar with the difference between lost revenue associated with the Companies' NEM DER Programs and net lost revenue associated with EE and demand side management ("DSM") Programs. Witness Ford's intense focus on nomenclature, however, leads her to ignore the substance of the concerns raised by ORS. The differences in the calculations and cost recovery mechanisms for lost revenue and net lost revenue are not the important issues that concern ORS with the proposed Programs. Witness Ford's Rebuttal Testimony (p. 6, ll. 18-21) indicates that the Companies intend via the proposed Programs to include in the calculation of net lost revenues the reduction in the Companies' net income attributed to Solar PV customer-generator consumption of self-generated energy. When a Solar PV customer-generator uses customer generated energy (behind the meter), the customer-generator buys less energy from the Companies and the Companies experience a kilowatt-hour ("kWh") sales reduction for that customer-generator. Lost revenue is lost revenue no matter if the calculation is derived from "NEM total generator output" or "reduced grid energy usage due to self-consumption."

1 The source of the kWh sales reduction originates from customer-generators who
2 apply for the proposed Programs on or after June 1, 2021. In this regard, a plain reading of
3 S.C. Code Ann. § 58-40-20(I) of the South Carolina Energy Freedom Act (“Act 62”)¹
4 prohibits the Companies from recovering lost revenues **associated** with these customer-
5 generators. The Companies claim that S.C. Code Ann. § 58-40-20(I) only applies to NEM
6 DER costs, which include lost revenues. What Duke conveniently overlooks, however, is
7 the fact that Act 62 also encompasses future lost revenues associated with customer-
8 generators that apply on or after the date of June 1, 2021. The date is significant because
9 the only program available to new customer-generators starting on June 1, 2021 is the Solar
10 Choice Metering programs. Therefore, in order to participate in the proposed Programs a
11 customer-generator must participate in the Solar Choice Metering program. In summary,
12 the fact remains that lost revenues are lost revenues no matter how Witness Ford
13 characterizes the terms to the Commission. Witness Ford’s attempt to redefine, or
14 reclassify, lost revenues and the Companies’ effort to create entitlement of the lost revenues
15 associated with the kWh sales reductions experienced by the Companies as a result of a
16 customer choosing to install Solar PV should be rejected.

17 Simply stated, by utilizing the EE/DSM Mechanism to recover lost revenues, the
18 Companies are asking the Commission to ignore one section of law that prohibits Duke
19 from collecting loss revenues associated with customer-generators and, instead, approve

¹ S.C. Code Ann. § 58-40-20(I) states:

Nothing in this section, however, prohibits an electrical utility from continuing to recover distributed energy resource program costs in the manner and amount approved by Commission Order No. 2015-194 for customer-generators applying before June 1, 2021. Such recovery shall remain in place until full cost recovery is realized. **Electrical utilities are prohibited from recovering lost revenues associated with customer-generators who apply for customer-generator programs on or after June 1, 2021.**

the Companies' ability to claim the energy savings and associated lost revenues through another avenue—the existing EE/DSM Recovery Mechanisms. For this reason, ORS recommends that the lost revenues associated with the proposed Programs be excluded from any sort of cost recovery by the Companies.

Q. DO YOU AGREE WITH WITNESS FORD'S ASSERTION THAT A SOLAR PV SYSTEM IS AN EE SOURCE LIKE AN HVAC SYSTEM (FORD REBUTTAL, P. 6)?

A. No. Witness Ford's Rebuttal Testimony on this point is filled with vague statements and provides no information to support her assertion that Solar PV results in "quantifiable benefits and savings for all customers of EE/DSM programs." Furthermore, Witness Ford does not discuss any purported savings and benefits come at considerable cost to the Companies' customers and the proposed Programs would increase the cost by \$6 million for DEC customers and over \$890,000 for DEP customers over the next five (5) years.

As I stated in my Direct Testimony on page 5, solar PV is a **source** of energy and in no way reduces the consumption of any end-use household equipment by the customer-generator. Duke even admits that electric generation is not EE. Specifically, Duke's EE/DSM Nonresidential Smart Saver Program Tariffs contain the statement that "Electric generation, from either non-renewable or renewable sources, is not considered an energy efficiency measure and therefore does not qualify for payments."² High efficiency HVAC equipment is eligible to participate in these programs as an EE measure; however, **sources**

² Duke's EE/DSM Nonresidential Smart Saver-Energy Efficient Products and Assessment Programs (Revised Surrebuttal Exhibit OOM-1). By way of letter dated March 22, 2018, Duke informed the Commission of the completed filing of the tariffs in the E-Tariff System, which became effective for service rendered on and after March 14, 2018.

of electric generation are not, renewable or otherwise. Witness Ford fails to distinguish the difference between a source of generation and an EE measure. By Duke's own admission, Solar PV is not an EE measure because it generates electricity and should not be categorized as such.

Q. PLEASE COMMENT ON WITNESS DUFF'S STATEMENTS REGARDING COST-EFFECTIVENESS TESTING AND ORS'S "UNWINDING" AND WANTING TO "RELITIGATE WHAT IT SETTLED" IN THE SETTLEMENT AGREEMENTS APPROVED IN COMMISSION ORDER NOS. 2021-32 AND 2021-33 FOR DEC AND DEP, RESPECTIVELY (DUFF REBUTTAL, PP. 10-12).

A. Witness Duff's assertions are contrary to what was actually agreed upon by the parties in the Settlement Agreements entered in Docket Nos. 2013-298-E (DEC) and 2015-163-E as approved in Order Nos. 2021-32 and 2021-33. ORS strongly disagrees with the Companies' assertion that because the utility cost test ("UCT") is the "primary" cost effectiveness test under the Settlement Agreements that other cost-effectiveness tests are unconditionally inappropriate for the Commission to consider. The UCT is the primary test, but other tests remain relevant.

Witness Duff agrees that the Companies are required to provide the results of other cost-effectiveness tests under those Orders, which makes little sense if those tests must be completely ignored in any review of proposed EE/DSM programs. Nor would it be good policy to read the Orders as requiring the Commission to ignore relevant information provided by other cost-effectiveness tests regardless of circumstance. That is particularly clear in this case, given the serious flaws in the Companies' UCT calculations as explained by ORS Witness Horii and the unprecedented and untested expansion of EE/DSM

1 programs that the Programs would represent. The Companies' newly proposed Programs
2 should be thoroughly examined for prudence and cost-effectiveness to protect South
3 Carolina customers.

4 Equally important is the fact that Solar PV is not EE and therefore not even subject
5 to the EE/DSM Mechanisms. The Orders do not and could not bar the Commission from
6 considering other cost-effectiveness tests because the Programs are not eligible EE/DSM
7 Programs. Settlement Agreement Exhibit No. 1 in both Settlement Agreements as approved
8 by the Commission states:

9 **Matters Occurring Subsequent to the Filing of the Application**

10 The terms of this Mechanism, including the methods and results of
11 determining the PPI, PRI, and other Incentives, **shall not be considered**
12 **precedential for any purpose other than their application to eligible**
13 **DSM/EE Programs** and cost and utility incentive recovery associated
14 with those Programs, and only until those terms are next partially or
15 wholly reviewed. (emphasis added).
16

17 The Commission can and should consider other cost-effectiveness tests in its review of the
18 proposed Programs.

19 **Q. DO YOU AGREE WITH WITNESS FORD'S AND WITNESS DUFF'S USE OF**
20 **COMMISSION ORDER NO. 2021-569, TO SUPPORT THE COMPANIES'**
21 **ASSERTION THAT SOLAR PV SHOULD BE CONSIDERED AN EE MEASURE?**

22 A. No. I disagree with Witness Ford's and Witness Duff's interpretation of
23 Commission Order No. 2021-569. To support the Companies' assertion that Solar PV
24 should be considered as EE, both Witness Ford and Witness Duff refer to a single sentence
25 in the Order, which states, "[a]ll self-consumed generation is equivalent to energy

1 efficiency or demand-side management measures as a decrement to system load.”³ (Ford
2 Rebuttal, p. 7; Duff Rebuttal, p. 7) However, this statement does not make the claim that
3 solar PV customer-generators are EE/DSM measures as the Duke witnesses suggest.
4 Instead, the plain language of the Commission’s Order directs that the **methodology** used
5 to evaluate the benefits and costs of customer generation will be similar to how the
6 Companies evaluate EE/DSM measures. In other words, although self-consumed
7 generation and EE/DSM measures are decrements to system load, this does not equate to
8 Solar PV being accurately characterized as an EE/DSM measure.

9 **Q. DO YOU AGREE WITH WITNESS DUFF’S COMMENTS REGARDING YOUR**
10 **FOCUS ON THE COSTS ASSOCIATED WITH THE IMPLEMENTATION OF**
11 **THE PROPOSED PROGRAMS (DUFF REBUTTAL, P. 20)?**

12 A. No. In his Rebuttal Testimony, Witness Duff incorrectly states that I “unduly focus[
13 on] the costs of the Program, which fundamentally misrepresents how EE/DSM programs
14 actually operate.” To the contrary, I fully understand how EE/DSM programs operate,
15 which is evident from my ten (10) years’ experience working on various utility EE/DSM
16 programs, including those of not only DEC and DEP, but also Dominion Energy South
17 Carolina, Inc. In addition, ORS performs an annual review of all costs and benefits claimed
18 by the Companies associated with EE/DSM programs. In these dockets, ORS and E3
19 reviewed both the costs and benefits associated with the proposed Programs and my Direct
20 Testimony, and that of Witness Horii, reflects our full review of the Companies proposed

³ Order No. 2021-56, pp. 9-10.

1 Programs. None of the Companies' witnesses address the cost impact to the Companies'
2 customers.

3 As discussed in my Direct Testimony, the five (5) year estimated costs associated
4 with the implementation of the proposed Programs total \$6,733,203 for DEC and \$890,836
5 for DEP.⁴ It strains credulity for the Companies' witness to suggest that these costs are
6 unnecessary for the Commission to consider when issuing its decision in this case. This is
7 especially so considering that the Commission is being asked to determine whether the
8 Companies' residential customers should bear these additional costs in addition to the
9 current costs (\$80,028,532 for DEC⁵ and \$37,477,937 for DEP)⁶ subject to recovery for
10 Duke's existing EE/DSM programs regardless of any possible future benefits that may be
11 achieved from the proposed Programs.

12 Each potential Solar PV customer-generator considering such an investment will
13 have to answer whether it is financially feasible for the customer to install Solar PV given
14 other financial obligations they may have at the time of the decision. Likewise, the
15 Commission will be required to decide whether **all** South Carolina residential customers
16 **can** and **should** bear the additional costs associated with the implementation of the
17 Companies' proposed Programs **on top of** the current Solar Choice and EE/DSM costs to
18 be recovered from all residential customers. The Commission approved the Companies'
19 and Clean Energy Advocates' Stipulation which resulted in the current Solar Choice
20 Metering tariffs. In doing so, the Commission determined the tariffs to be "just and

⁴ Responses to ORS Data Requests 1-22.

⁵ Docket No. 2021-76-E, effective January 1, 2022.

⁶ Docket No. 2021-243-E, currently pending before the Commission. ORS report and intervenor comments are due to be filed on October 15, 2021, with cost recovery effective January 1, 2022, if approved.

1 reasonable and [complied] with ...Act 62.” The Commission agreed with the Companies
2 and Clean Energy Advocates that the Solar Choice Metering tariffs “[w]ill incentivize the
3 adoption of solar in South Carolina, thereby avoiding disruption of the market and
4 continuing the successful deployment of DERs under Act 236.” The Commission’s Order
5 2021-390 (page 78) goes on to state “[t]he opportunity for significant bill savings under
6 the Solar Choice Tariffs, ensures that customer-generators have access to NEM programs
7 in accordance with Act 62.” Now that the Companies and Clean Energy Advocates propose
8 additional incentives for Solar PV customer-generators, ORS again reiterates that these
9 additional incentives are unnecessary to comply with the requirements of Act 62 and place
10 unwarranted and unjustified costs upon the Companies customers.

11 As stated in my Direct Testimony, the proposed Programs contain unwarranted and
12 unjustified additional incentives for Solar PV customer-generators that will provide the
13 Companies’ shareholders with recovery of net lost revenues and a 10.6% Portfolio
14 Performance Incentive. The costs associated with the additional incentives for Solar PV
15 customer-generators and shareholders will be paid for by the Companies’ South Carolina
16 residential customers. ORS recommends the Commission deny the Companies’ request to
17 implement the proposed Programs so as not to add an additional cost burden onto all South
18 Carolina residential customers

19 **Q. PLEASE ADDRESS WITNESS DUFF’S STATEMENT THAT “EXISTING**
20 **ADOPTION RATES DO NOT REFLECT FUTURE ADOPTION RATES WITH**
21 **THE NEW SOLAR CHOICE METERING PROGRAMS OR THE COMPANIES’**
22 **PROPOSED PROGRAMS” (DUFF REBUTTAL, PP. 21-22).**

1 A. Witness Duff's statement highlights the fact the Companies have not provided any
2 supporting evidence to show that, without the proposed Programs, there will be a
3 substantial reduction in customers deciding to install Solar PV. In fact, since June 1, 2021,
4 the Companies have received a substantial number of new Solar Choice Metering
5 customer-generator interconnection applications (DEC received 454 and DEP received
6 86).⁷ This indicates a positive adoption trend that shows customers are willing to make the
7 investment decision to become customer-generators based on other financial incentives and
8 marketplace factors without the need for additional incentives funded by the Companies'
9 non-solar customers.

10 **Q. PLEASE RESPOND TO WITNESS DUFF'S STATEMENTS REGARDING YOUR**
11 **"SUFFICIENT AND ADEQUATE" DESCRIPTION OF THE COMPANIES'**
12 **SOLAR CHOICE METERING TARIFFS (DUFF REBUTTAL, P. 21).**

13 A. Witness Duff states, "Because the Program will result in savings for all customers,
14 the Companies are not satisfied with the "sufficient and adequate" Solar Choice Metering
15 tariffs and instead recommend Commission approval of the Program proposed in these
16 dockets." The statement by the Companies' witness demonstrates that Duke desires to
17 require all South Carolina residential customers to fund additional incentives for Solar PV
18 customer-generators that exceed "sufficient and adequate." And, to do so the Companies
19 propose to divert the additional solar customer-generator up-front incentives to the
20 EE/DSM suite of programs. The Companies' should not be able to dismantle the
21 appropriate balance the Commission achieved to implement Act 62's objectives of

⁷ Response to ORS Data Request 4-5.

eliminating the cost shift to the greatest extent practicable while also providing access to customer-generator programs through the approval of the Companies' proposed Solar Choice Metering tariffs.

Q. WILL YOU UPDATE YOUR REVISED SURREBUTTAL TESTIMONY BASED ON INFORMATION THAT BECOMES AVAILABLE?

A. Yes. ORS fully reserves the right to revise its recommendations via supplemental testimony should new information not previously provided by the Company, or other sources, becomes available.

Q. DOES THIS CONCLUDE YOUR REVISED SURREBUTTAL TESTIMONY?

A. Yes.

O'Neil Morgan, MS

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omorgan@ors.sc.gov

Experience Overview

O'Neil has over 16 years' experience in commercial and industrial energy demand management, specializing in heating, ventilation and air conditioning (HVAC) and lighting systems. His focus over the last 10 years has been on utility demand side management programs, and energy efficiency program development and implementation. He has served as ICF Technical Advisor for energy-efficiency commercial and industrial programs for several utility programs, namely, Baltimore Gas & Electric (BG&E), Southern Maryland Energy Cooperative (SMECO), South Carolina Electric & Gas (SCE&G) (now Dominion Energy South Carolina), Delmarva Power, Pepco, and Entergy Mississippi.

In his current capacity at South Carolina Office of Regulatory Staff (ORS), Mr. Morgan is involved in the review and assessment of South Carolina's utilities program filings concerning; DSM/EE programs, DER programs, integrated resource plans, integration of renewables and solar leasing programs, to ensure compliance with all state and federal laws, regulations, and company policies.

South Carolina Office of Regulatory Staff (ORS) 2019 – Present

Senior Engineer - Energy Efficiency & Renewables Mr. Morgan serves as the in-house expert on DSM/EE utility programs. He is involved in various aspects of the review and evaluation of South Carolina's utilities filings concerning; energy efficiency and demand-side management program, distributed energy resources (DER) programs, integrated resource plans, utility integration of renewables and solar leasing programs. He is also responsible for the development and delivery of written and oral testimony related to utility filings in front of the South Carolina Public Service Commission.

ICF 2009 - 2019

Selected Experience at ICF - Pepco and Delmarva Power Energy Savers Program—, Maryland, 2017-2019.

Technical Specialist. Mr. Morgan serves as ICF Technical Advisor for the Pepco and Delmarva Power C&I energy efficiency incentive programs. His technical responsibilities include providing guidance and recommendation to in-house program managers and project engineers on various technical issues as it relates to baseline determination, energy impact estimation algorithms, and program implementation processes, as well as responding to measurement and verification evaluators and Public Service Commission staff.

Energy Efficiency Programs— BGE and SMECO Utilities in Maryland, 2009-2019.

Technical Specialist and Custom Program Manager. Mr. Morgan serves as the Custom Program Manager and in-house Technical Lead for the implementation of BGE's C&I programs. His technical responsibilities include baseline determination, implementation of energy impact estimation algorithms, and technical oversight of program technical staff. Also manages six engineering firms approved as Technical Service Providers for BGE's rebate programs. Other duties include reviewing applications and engineering analysis reports and giving guidance and support to program managers and engineering staff. Mr. Morgan is responsible for managing the custom program and keeping the program cost-effective. He also ensures that program requirements and technical specification are met by all customers participating in the program, while keeping up-to-date on utility filings, energy codes, and making appropriate changes and recommendations to the existing custom energy savings programs.

Education

- MS, Engineering Management, Florida International University, 2008
- BEng, Mechanical Engineering, University of Technology, Jamaica, 2006
- AA, Industrial Systems Operations and Maintenance, Caribbean Maritime Institute, 2002

Key Skills

- Demand Side Program Management
- Energy Impact Estimation Algorithms
- Energy Savings Program Implementation
- Code Compliant and Baseline determination
- Energy Model Analysis
- Building Energy Analysis

Certification and Training

- Photovoltaic Design and Installation
- Designing Process Safety Management Programs
- Implementation of the National Energy Information System
- Energy Management

EnergyWise for Your Business—South Carolina Electric and Gas (SCE&G), South Carolina, 2010-2019.

Custom Program Manager. Mr. Morgan serves as the Custom Program Manager and in-house Technical Lead for the development and implementation of SCE&G C&I programs. His technical responsibilities include baseline determination, and implementation of energy impact estimation algorithms. He reviews applications and engineering analysis reports submitted by C&I customers applying for incentives for their energy efficiency projects. Other duties include performing engineering and economic analysis deemed necessary to determine the energy savings and cost effectiveness of proposed energy efficiency projects, while ensuring that program requirements and technical specification are met by all customers participating in the program.

Jackson Health System, 2008

Industrial Engineer intern. Mr. Morgan in his role as an Industrial Engineer intern generate optimal process flow maps necessary to provide relevant information for the implementation of an ERP System, this involved conducting interview with key individual to determine operational processes, analyzing data to determine optimal process path, generate value stream maps with Microsoft Visio and make recommendations to conserve resources and optimize operational processes in an effort to save 30% in capital budget.

Florida International University, 2007 –2008

Graduate Assistant. Mr. Morgan served as a Graduate Assistant and provided assistance to lead professors for various courses (Advance Engineering Economy, Technology Policies and Strategies, Management of Technology), with specific responsibility of managing student course work throughout the semester. His responsibilities included; creating Microsoft excel database to maintain records of each student's progress throughout the semester. He facilitated communication with students by way of office hours in an effort to provide assistance for any course related queries and provided tutorial sessions related to course of study (Advance Engineering Economy, Advance Project Management, Engineering Management and Total Quality Management).

Jamaica Public Service Company Ltd. 2006

Energy Engineer. Mr. Morgan served as an Energy Engineer, conducting energy audits at customer/client facilities upon request. This generally involves site visits to verify installation and operation of baseline equipment. His responsibilities involved installation of various data loggers to collect relevant building and equipment energy use data, performing data analysis on energy consumption and demand data (kWh, kW) of commercial buildings and performing billing analysis, energy savings calculations and conduct statistical and cost analysis to determine return on investment of energy conservation measures.

Ministry of Energy February 2002 – March 2006

Energy Engineering Officer. Mr. Morgan served as an Energy Engineering Officer assisting in the development and implementation of demand side management programs. Assistance included development of a suite of program templates for residential and non-residential customer segments, development of budgets and energy savings projections. He conducted energy audits of government entities and private sector companies upon request and provide recommendations on ways to conserve energy at various government agencies.

PROFESSIONAL AFFILIATIONS

Member of ASHRAE

Member of NSBE

Member of Golden Key International Honor Society

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**SOWELL GRAY
ROBINSON**

Litigation + Business

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March 22, 2018

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk / Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, SC 29210

Re: Duke Energy Carolinas, LLC - Compliance filing - Docket No. 2013-298-E
Power Manager Load Control Service-Rider PM; Nonresidential Smart Saver®
EE Products and Assessment Program; and Nonresidential Smart Saver®
Performance Incentive Program SSP

Dear Ms. Boyd:

Please allow this letter to provide notice to the Public Service Commission of South Carolina that, pursuant to Order Nos. 2018-179 and 2018-180, Duke Energy Carolinas, LLC ("DEC") has completed its tariff filings in the E-Tariff System. DEC provided the tariffs to the South Carolina Office of Regulatory Staff for its review in advance of this filing.

Please feel free to contact me should there be any questions or issues.

Kind regards,

A handwritten signature in black ink, appearing to read "SJW".

Sam Wellborn

SJW:tch

cc via email: Parties of Record

Duke Energy Carolinas, LLC

Electricity No. 4
South Carolina Second Revised Leaf No. 174
Superseding South Carolina First Leaf No. 174

NONRESIDENTIAL SMART SAVER ®
ENERGY EFFICIENT PRODUCTS AND ASSESSMENT PROGRAM (SC)

PURPOSE

The purpose of this program is to encourage the installation of new high efficiency equipment in new and existing nonresidential establishments as well as efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The program will provide incentive payments for energy assessment and offset a portion of the higher cost of new energy efficient equipment or the efficiency-related repair activities.

PROGRAM

Payments are available to owners of, or customers occupying, new or existing nonresidential establishments served on Company's general service rate and industrial rate schedules from Company's retail system.

Payments are available for a percentage of qualifying energy assessments, a percentage of the cost difference between standard equipment and qualifying new higher efficiency equipment, or a percentage of the cost of qualifying efficiency-related repair activities as further described below.

Prescriptive Incentives for Specific Equipment

The following types of equipment are eligible for incentives:

- High efficiency lighting
- High efficiency heating, ventilation and air conditioning equipment
- High efficiency pumps and variable frequency drives
- High efficiency food service equipment
- High efficiency process equipment
- High efficiency information technology equipment

The Company may vary the percentage incentive by type of equipment, differences in efficiency and type of efficiency-related repair activity either to provide the minimum incentive needed to drive customers to install purchase higher efficiency equipment or to encourage maintaining or enhancing efficiency levels in currently installed equipment.

The Company reserves the right to adjust the incentive and equipment requirements on a periodic basis as equipment efficiency standards change and as customers naturally move to install higher efficiency equipment.

The amount of the incentive payment for various standard types of equipment will be filed with the Commission annually, for information, and posted to the Company's website at www.duke-energy.com.

Incentives for Custom Projects

Energy Assessments

Optional energy assessments are available to identify and/or evaluate energy efficiency projects and energy efficient measures. The scope of an energy assessment may include but is not limited to facility energy audit, new construction/renovation energy performance simulation, system energy study and retro-commissioning service. Payments are available to offset a portion of the costs of a qualifying energy assessment.

The Company may vary the percentage of energy assessment payment based on the facility size, age, equipment, and other criteria that may affect the amount of energy efficiency opportunities, and the expectation of the customer implementing recommendations identified. All, or a portion of, the energy assessment payment may be contingent on the customer implementing a minimum amount of cost effective energy efficiency measures within a set timeframe.

Custom Incentives

Custom incentives are available with or without an energy assessment provided by the Company. The Company shall determine what projects meet the criteria for higher efficiency equipment or efficiency-related maintenance activities, including but not limited to the types of equipment shown above under Prescriptive Incentives. To qualify for efficiency related incentives for HVAC or process equipment, such equipment must have a remaining use life greater than 2 years.

Duke Energy Carolinas, LLC

Electricity No. 4
South Carolina Second Revised Leaf No. 174
Superseding South Carolina First Leaf No. 174

Electric generation, from either non-renewable or renewable sources, is not considered an energy efficiency measure and therefore does not qualify for payments.

The Company may vary the percentage incentive based on project conditions, including differences in efficiency, operating conditions, measure life, free ridership, and other factors that affect projected energy savings, and based on measure cost effectiveness in order to provide the minimum incentive needed to drive customers to install higher efficiency equipment.

The Company also offers an optional, expedited review process for projects with short timelines. A fee associated with the expedited review of an application will be borne by the customer submitting the application regardless of application approval. Customer's electing to use the expedited review will be charged by the Company regardless of the results of their application; however, at the time of their application approval a customer may elect to defer the payment of the fee until the Company processes the incentive payment. The expedited review process is available to all customers and the expedition fee will be posted on the company's website and is subject to change.

In order to receive payment under the Smart Saver Prescriptive program the following requirements must be met:

- For new high efficiency equipment in an existing establishment, the customer must submit a request for incentive payment either before or within ninety (90) days of installation, along with the required documentation and verification that the installed efficiency measures meet the requirements of this program.
- For efficiency-related activity, the customer must submit a request for incentive payment either before or within 90 days of the completing the efficiency-related activity, along with the required documentation and verification that the efficiency-related activity meet the requirements of the program.
- For new high efficiency equipment in a new establishment the customers must submit a request for incentive payment either before or within 90 days after the customer takes initial permanent service from the Company.

In order to receive payment under the Smart Saver Custom program, all program eligibility requirements must be met. Program eligibility requirements are listed in the Terms and Conditions on the Smart Saver application.

The Company reserves the right to inspect the premises of the customer both before and after implementation of the measure or completion of the efficiency-related activity for which an incentive payment is requested. Incentive payments will be made only after the equipment has been installed and is operable or the efficiency-related activity has been completed, as verified by the Company.

Multiple incentive payments may be requested for each establishment; however, the Company reserves the right to limit the payments per establishment per year.

PAYMENT

- The payment to the customer or owner will be an amount up to 75% of the installed cost difference between new standard equipment and new higher efficiency equipment or up to 75% of the cost of the efficiency-related activity.
- In conjunction with this program or in combination with other approved Company energy efficiency and DSM programs, Company may provide a limited quantity of low-cost energy efficient equipment directly to eligible Non-residential customer accounts, at no out-of-pocket cost to the customer.
- With Company approval, the customer or owner may designate that payment be made to the vendor or other third-party.

COMPANY RETENTION OF PROGRAM BENEFITS

Incentives and other considerations offered under the terms of this Program are understood to be an essential element in the recipient's decision to participate in the Program. Upon payment of these considerations, Company will be entitled to any and all environmental, energy efficiency, and demand reduction benefits and attributes, including all reporting and compliance rights, associated with participation in the Program.

Duke Energy Progress, LLC
(South Carolina Only)

SC Program NSSEE-4
Supersedes Program NSSEE-2

**NONRESIDENTIAL SMART SAVER ®
ENERGY EFFICIENT PRODUCTS AND ASSESSMENT PROGRAM NSSEE-4**

PURPOSE

The purpose of this program is to encourage the installation of new high efficiency equipment in new and existing nonresidential establishments as well as efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The program will provide incentive payments for energy assessments and to offset a portion of the higher cost of new energy efficient equipment or the efficiency-related repair activities.

PROGRAM

Payments are available to owners of, or customers occupying, new or existing nonresidential establishments served on Company's general service schedules and are served from Company's retail system.

Payments are available for a percentage of qualifying energy assessments, a percentage of the cost difference between standard equipment and qualifying new higher efficiency equipment, or a percentage of the cost of qualifying efficiency-related repair activities as further described below.

Prescriptive Incentives for Specific Equipment

The following types of equipment are eligible for incentives.

- High efficiency lighting
- High efficiency heating, ventilation and air conditioning equipment
- High efficiency pumps and variable frequency drives
- High efficiency food service equipment
- High efficiency process equipment
- High efficiency information technology equipment

The Company may vary the percentage incentive by type of equipment, differences in efficiency and type of efficiency-related repair activity either to provide the minimum incentive needed to drive customers to install higher efficiency equipment or to encourage maintaining or enhancing efficiency levels in currently installed equipment.

The Company reserves the right to adjust the incentive and equipment requirements on a periodic basis, as equipment efficiency standards change and as customers naturally move to install higher efficiency equipment.

The amount of the incentive payment for various standard types of equipment will be filed with the Commission annually, for information, and posted to the Company's website at www.duke-energy.com.

Incentives for Custom Projects

Energy Assessments:

Optional energy assessments are available to identify and/or evaluate energy efficiency projects and energy efficient measures. The scope of an energy assessment may include but is not limited to facility energy audit, new construction/renovation energy performance simulation, system energy study and retro-commissioning service. Payments are available to offset a portion of the costs of a qualifying energy assessment.

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The Company may vary the percentage of energy assessment payment based on the facility size, age, equipment, and other criteria that may affect the amount of energy efficiency opportunities, and the expectation of the customer implementing recommendations identified. All, or a portion of, the energy assessment payment may be contingent on the customer implementing a minimum amount of cost effective energy efficiency measures within a set timeframe.

Custom Incentives:

Custom incentives are available with or without an energy assessment provided by the Company.

The Company shall determine what projects meet the criteria for higher efficiency equipment or efficiency-related maintenance activities, including but not limited to the types of equipment shown above under Prescriptive Incentives. To qualify for efficiency related incentives for HVAC or process equipment, such equipment must have a remaining use life greater than 2 years.

Electric generation, from either non-renewable or renewable sources, is not considered an energy efficiency measure and therefore does not qualify for payments.

The Company may vary the percentage incentive based on project conditions, including differences in efficiency, operating conditions, measure life, free ridership, and other factors that affect projected energy savings, and based on measure cost effectiveness in order to provide the minimum incentive needed to drive customers to install higher efficiency equipment.

The Company also offers an optional, expedited review process for projects with short timelines. A fee associated with the expedited review of an application will be borne by the customer submitting the application regardless of application approval. Customer's electing to use the expedited review will be charged by the Company regardless of the results of their application; however, at the time of their application approval a customer may elect to defer the payment of the fee until the Company processes the incentive payment. The expedited review process is available to all customers and the expedition fee will be posted on the company's website and is subject to change.

In order to receive payment under the Smart Saver Prescriptive program the following requirements must be met.

- For new high efficiency equipment in an existing establishment, the customer must submit a request for incentive payment either before or within ninety (90) days of installation, along with the required documentation and verification that the installed efficiency measures meet the requirements of this program.
- For efficiency-related activity, the customer must submit a request for incentive payment either before or within 90 days of the completing the efficiency-related activity, along with the required documentation and verification that the efficiency-related activity meet the requirements of the program.
- For new high efficiency equipment in a new establishment the customers must submit a request for incentive payment either before or within 90 days after the customer takes initial permanent service for the Company.

In order to receive payment under the Smart Saver Custom program, all program eligibility requirements must be met. Program eligibility requirements are listed in the Terms and Conditions on the Smart Saver application.

The Company reserves the right to inspect the premises of the customer both before and after implementation of the measure or completion of the efficiency-related activity for which an incentive

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payment is requested. Incentive payments will be made only after the equipment has been installed and is operable or the efficiency-related activity has been completed, as verified by the Company.

Multiple incentive payments may be requested for each establishment; however, the Company reserves the right to limit the payments per establishment per year.

PAYMENT

- The payment to the customer or owner will be an amount up to 75% of the installed cost difference between new standard equipment and new higher efficiency equipment or up to 75% of the cost of the efficiency-related activity.
- In conjunction with this program or in combination with other approved Company energy efficiency and DSM programs, Company may provide a limited quantity of low-cost energy efficient equipment directly to eligible Non-residential customer accounts, at no out-of-pocket cost to the customer.
- With Company approval, the customer or owner may designate that payment be made to the vendor or other third-party.

COMPANY RETENTION OF PROGRAM BENEFITS

Incentives and other considerations offered under the terms of this Program are understood to be an essential element in the recipient's decision to participate in the Program. Upon payment of these considerations, Company will be entitled to any and all environmental, energy efficiency, and demand reduction benefits and attributes, including all reporting and compliance rights, associated with participation in the Program.

DSM/EE OPT-OUT ELIGIBILITY

An opt-out eligible customer participating in this program on and after January 1, 2016, or accepting incentives under this program on and after that date, loses the right to be exempt from the EE Rate for three (3) years following the receipt of incentives under this program. An opt-out eligible participant receiving incentives under this program prior to December 1, 2010 may not request to be exempt from the EE Rate any earlier than August 1, 2017. An opt-out eligible participant receiving incentives under this program on or after December 1, 2010, but prior to July 1, 2012, may not request to be exempt from the EE Rate any earlier than January 1, 2018. An opt-out eligible participant receiving incentives under this program on or after July 1, 2012, but prior to February 1, 2014, may not request to be exempt from the EE Rate any earlier than July 1, 2018. An opt-out eligible participant receiving incentives under this program on or after February 1, 2014, but prior to January 1, 2016, may not request to be exempt from the EE Rate any earlier than January 1, 2019.

GENERAL

Service rendered under this Program is subject to the provisions of the Service Regulations of the Company and Demand Side Management and Energy Efficiency Rider DSM/EE on file with the Public Service Commission of South Carolina.